

Shuttle upgrade conference draws major interest — local and national companies boost attendance

When the Office of Space Flight and United Space Alliance were seeking to update the nation's image of the Shuttle and

pants, innovative companies and fresh technologies. The response was beyond all expectations.



photo by Jason Miller

Front row, from left to right: Sunnyvale Vice-Mayor Pat Vorreiter; State Assemblywoman Elaine White-Alquist; State Senator Liz Figueroa and Mountain View Vice-Mayor Rosemary Stasek. Second row, far left, Assemblyman Mike Honda, next to Sunnyvale Councilmember Julia Miller; with former astronaut Andy Allen, far right.

signal their intention to incorporate bold, new ideas into future program plans, they brought the Shuttle upgrade conference to Ames Research Center. The rationale was to get an influx of enthusiastic new partici-

R. T. Jones dies

As we go to press, we have just learned that Robert Thomas (R.T.) Jones, pioneer of the swept-back wing, basic to all of today's high-speed aircraft, died Aug. 11, 1999, at his Los Altos Hills home. He was 89.

Funeral arrangements are pending. A longer article commemorating the life of this Ames icon will appear in the next issue of the Astrogram.

On July 28-30, 1999, Ames' historic Hangar 1 and the Moffett Training and Conference Center played host to a series of displays, panel discussions and technical sessions that attracted a registered crowd of over 700 participants, far in excess of the 300 anticipated. Then, on Saturday, the Space Technology and Education open public event drew an estimated additional 7,500 visitors. While the large crowds presented some logistical challenges, they also made for free, wide-ranging and open discussions of new ideas and concepts, and a greater public awareness of the Shuttle program and Ames' role in it.

The conference kicked off with a grand opening event on the evening of July 28. Miles O'Brien, news anchor for CNN, welcomed the large crowd before turning

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"Moon struck"

Ames' Lunar Prospector, "the little spacecraft that could," can't anymore! As a room full of viewers and observatories from around the world looked on, the LP Mission Control team successfully ended the Lunar Prospector mission at 2:52:00.8 a.m. PDT on Saturday, July 31, 1999, when the spacecraft slammed into a deep crater near the south pole of the moon.

No visible debris plume was reported by any of the numerous observatories monitoring the event. According to the mission team, it may take weeks of analysis to separate out background information before data from ground- and space-based telescopes can be processed to determine if any water vapor was liberated by the impact. To steal a line from a CNN correspondent, at least for now "the search for 'Moon River' continues."

Ames' Lunar Prospector mission control center is confident that the small, spin-stabilized spacecraft hit its intended target precisely. The failure to reacquire a signal from the vehicle at the time it would have emerged from the dark side of the moon is proof that impact occurred. The absence of a visible debris plume was not interpreted to be a negative result by the science team. In fact, according to Principal Investigator Alan Binder, it increases the likelihood that the spacecraft impacted, not on the exposed lunar surface, but deep into the intended target crater which is over four kilometers deep.

The final sequence of events for Prospector began early on Saturday morning at

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Ames rotorcraft technologists win American Helicopter Society awards

The San Francisco Bay Area Chapter of the American Helicopter Society (AHS) recently presented its 1999 awards to Ames personnel for outstanding rotorcraft research, the outstanding rotorcraft technical paper and outstanding rotorcraft technical support.

American Helicopter Society President Laura Iseler presented the annual awards during a dinner held June 29 at Michael's restaurant at Shoreline.

The Schroers Award for Outstanding Rotorcraft Research was presented to the Tilt Rotor Aeroacoustic Model (TRAM) Team represented by Dr. Gloria Yamauchi (Code ARA). The award is given to an individual or group for making a significant contribution to rotorcraft technology.

The TRAM team successfully executed the first experimental investigation of the fundamental aerodynamics and acoustics of a tiltrotor. This new type of aircraft holds great promise for improving the capacity of the national airspace system. With the ability to take off and land like a helicopter, yet fly at turboprop cruise speeds, the tiltrotor may someday carry the majority of short-haul, inter-city air travel. However, to take advantage of such potential, the tilt rotor aircraft must be designed to be safe, aerodynamically efficient, and quiet.

Prior to this program, researchers, rotorcraft designers, and airframe manufacturers had no rotor aerodynamic airloading data to validate current methodologies or to begin to understand the details of tilt rotor noise generation and radiation. Additionally, although many studies have been made about helicopter wake system generation and evolution, no tiltrotor wake measurements had been made prior to this program in the critical descent operating mode when rotor noise is the highest, and therefore community annoyance the greatest.

The program involved the development of a unique 1/4-scale model of an isolated V-22 Osprey rotor set and subsequent testing in the Netherlands at the Duits-Nederlandse Windtunnel (DNW). The experiment was completed in the spring of 1998. The results from the program are already being heavily used by U.S. industry (Boeing, Bell, and Sikorsky) and government engineers to improve design tools for future, quiet tiltrotor aircraft. Team membership included NASA Ames and NASA Langley, U.S. Army, Boeing, Raytheon, and other contractor personnel. The complete success of this program directly feeds into the full-span TRAM V-22 test program in the Ames National Full-Scale Aerodynamics

Complex in CY 2000. This still-more-challenging program will provide the first aeroacoustic evaluation of a complete tilt rotor aircraft in the world's best large-scale anechoic wind tunnel.

The Velkoff Award for Outstanding Technical Paper was presented to Matthew Whalley (Code ARH), Jeremy Howitt, and Stephen Clift for their paper entitled "Optimization of Partial Authority Automatic Flight Control Systems for Hover/Low-Speed Maneuvering in Degraded Visual Environments." The technical paper discussed the achievement of advanced response types like Attitude Command Attitude Hold (ACAH) with limited authority control surface actuators, such as those found on a majority of civil and military helicopters.



The Velkoff Award is given for the best technical paper, written or published within the last 12 months, documenting a significant contribution to the field of vertical flight. The technical paper demonstrated the concept of "frequency matching," which attempts to concentrate actuator usage in matching the augmented aircraft response to that of unaugmented aircraft. The concept preserves the actuator's use for handling qualities and minimizes deleterious effects when the actuators are saturated, thereby allowing the aircraft's response to be very predictable and stable.

The technical paper also demonstrated that not only is achieving ACAH in a helicopter like the UH-60 Black Hawk technically feasible using a rigorous design process, but the results reported on numerous quantitative and qualitative measures clearly depict important performance and safety benefits which result. This comprehensive paper will find many important direct applications, including the Army's \$25M Heli-

copter Active Control Technology demonstration program, forthcoming United Kingdom/Canada flight tests of these concepts, and subsequent flight tests in the Army/NASA RASCAL UH-60.

The Outstanding Technical Support Award was presented to Richard Toner, (Code FOI) for the TRAM project. The award for Outstanding Technical Support is presented for exceptional technical support of vertical flight operation, research, or experimentation.

The TRAM project is a key infrastructure investment for NASA and U.S. Army tiltrotor research and is an important element in NASA's Short Haul Civil Tiltrotor research program. The TRAM project consists of the development and testing of two modular, hardware-compatible, test stands: an isolated rotor configuration and a full-span model (dual rotors with a complete 1/4-scale V-22 airframe representation). These two test stands are inclusively called the Tilt Rotor Aeroacoustic Model. Toner has performed exemplary efforts in TRAM instrumentation development and support. Toner has been a member of the TRAM team for over five years and has made substantial contributions to the overall success of the TRAM project. He is responsible for developing pressure instrumented rotor blades with 150 and a 256-channel rotating amplifier system.

During the past year, the TRAM program achieved two major milestones. First, a successful series of wind tunnel tests were conducted in the DNW with the isolated rotor TRAM test stand. The data from the DNW tests represents a unique resource for improved understanding of tiltrotor aeroacoustics. Second, the Full-Span TRAM has begun critical functional testing at NASA Ames—in the Building 246 model development area—in preparation for testing in the National Full-scale Aerodynamics Complex 40-by-80 foot wind tunnel.

The American Helicopter Society International is the world's premier professional vertical flight society. Since its inception in 1944, the AHS has been a major force in the advancement of a global rotorcraft industry, marked by rapid technical developments and expanding military capabilities and commercial applications. The society's goal is not only to emphasize and further engineering excellence in traditional rotorcraft platform disciplines, but also to expand this focus to the multidisciplinary fields of vertical flight and related support industries.

BY JASON COLBOURNE

Center Briefs

New center aims to improve food in space and on earth

NASA has selected Iowa State University, Ames, IA, to head up research that could lead to better food for astronauts and safer, more nutritious packaged foods for everyone. Iowa State will head the National Food Technology Commercial Space Center, working to improve food for long-duration space missions and to enhance the packaging, preparation and storage of commercially produced food. As space flight evolves from short-duration Space Shuttle missions to extended habitation aboard the International Space Station, NASA must provide astronauts with better tasting, more nutritious food that is lighter in weight, easier to store, and has a longer shelf-life.

NASA and FAA pick student aircraft-design contest winners

A new jet design by students at Embry-Riddle Aeronautical University in Daytona Beach, FL, has won NASA's and the FAA's 1998-99 National General Aviation Design Competition. NASA and the FAA presented awards to Embry-Riddle and four other university teams at a ceremony held at AirVenture '99, the Experimental Aircraft Association's Annual Convention and Fly-In at Oshkosh, WI.

NASA announces research grants in biology-inspired technology

NASA has selected 14 researchers to receive grants totaling approximately \$6.5 million over four years to conduct research in biology-inspired technologies as part of a \$12 million program. These grants represent new research efforts.

Sponsored by NASA's Office of Life and Microgravity Science and Applications, this research opens a new area of technological development that could have tremendous impact on the future of NASA's human exploration program. Also, the technologies could have a beneficial effect on the quality of life on Earth through advances in noninvasive medical monitoring, safer automobiles and aircraft, and other uses only imagined today.

Sharpest-ever Mars images reveal active red planet

Newly released images from NASA's Mars Global Surveyor show that the red planet is a different place today than it was two years ago when the spacecraft arrived—a world constantly reshaped by forces of nature including shifting sand dunes, monster dust devils, wind storms, frosts and polar ice caps that grow and retreat with the seasons.

"Moon struck"

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exactly 1:17 a.m., when the mission control team successfully loaded a 60-minute, pre-programmed countdown into Prospector's internal clock to initiate the final burn sequence. At 2:00 a.m., the final loss of signal from Prospector occurred, as planned, when the spacecraft passed behind the moon for the last time. At that time, Binder observed, "we don't want to hear from Prospector again — if we do, we've missed our mark." As subsequent events were to prove, he was not to be disappointed.

The scheduled 4 minute 36.5 second burn was executed behind the moon at 2:17 a.m. "Prospector's engines should be burning full — preparing to de-orbit," said Binder. "It is now hurtling towards its destiny at approximately 1.7 kilometers per second on a ballistic trajectory that will take it to its target crater."

The spacecraft's key scientific instruments continued to send data right up to the moment that all signals were lost. "Once again, Prospector has done everything we have asked of it," said Binder. "This mission provided ten times better data than we expected. The spacecraft performed flawlessly to its very end. Scientists will be analyzing the tremendous volume of valuable data obtained for years to come," he concluded.

Analysis of data obtained during the mission-end experiment will be ongoing for weeks to come. At the completion of that analysis, scientists will have a much

better idea if Prospector has, in fact, provided the definitive evidence of water-ice on the moon that they were seeking. A positive result may have the potential to open up expanded possibilities for solar system exploration. Failure to prove conclusively that water-ice exists in the lunar polar regions by no means suggests that it is absent, according to mission scientists. It simply means that this particular bold experiment, acknowledged as high payoff but also with low probability of success, has not provided the conclusive evidence that was being sought.

Lunar Prospector was the first of NASA's competitively selected "Discovery" class missions. The entire operation was conducted at a total cost, including spacecraft and launch vehicle, of \$63 million. The mission-end experiment completed what may well prove to be the most cost-effective and science-rich space exploration mission in NASA history to date.

"Regardless of the outcome of this final bold experiment, Lunar Prospector has yielded a gold mine of science data," said Ames' Center Director Henry McDonald. "We now have invaluable global maps of the moon's gravitational and magnetic fields, and the distribution of its key elements, giving us a much better understanding of the origin, evolution and composition of our rocky neighbor. I am truly proud of Ames' role as NASA mission manager for this bold and hugely successful undertaking."

BY LAURA LEWIS AND DAVID MORSE

Graduate level degree programs held at Ames

The Master of Science in Systems Management (MSSM), now located in Bldg. 19 - Room 1077, and sponsored by NASA Ames, provides graduate-level education in management theory and practice. The MSSM degree teaches systems thinking to bridge the gap between technology and business domains. The integrated learning experience teaches students to manage people, projects and information technology by:

1. Integrating technology into the organization's business plan;
2. Promoting cross-disciplinary team building;
3. Managing technology-driven change
4. Developing integrated organizational systems and;
5. Strategizing and promoting environments conducive to change.

While there are NASA students in the program, it is not uncommon to work on a team with students from Hewlett Packard, Sun, Compaq or other well-known high-

technology companies. It is also not unusual to work with professionals from different levels of management and non-management. This well-rounded experience gives the student extensive exposure to the management and technological practices of other leading companies in the area.

Working professionals can take one course every seven weeks and complete their degree in two years, or more quickly if they desire. Additional flexibility is added in with our combination classroom and on-line course track, thereby cutting down on commute time. The MSSM runs throughout the calendar year, allowing students to start and stop at their convenience.

Classes are additionally offered in Belmont and Oakland. For more information, please visit our web site at: www.ncal.verio.com/~mssm or call: (650) 960-0677.

Space Shuttle Conference

Shuttle upgrade conference draws major interest

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photo by Jason Miller

From left to right: Ames Center Director Dr. Henry McDonald; State Senator Liz Figueroa; Astronaut Paul Lockhart; and Sunnyvale Vice-Mayor Pat Vorreiter.

things over to Ames Center Director Henry McDonald, who set the themes for the evening. McDonald spoke of the need for enhanced safety, the incorporation of innovative technologies, and the breaking down of barriers between people and institutions. His comments struck a responsive chord with participants and NASA managers alike.

While NASA is all about "revolutionary thinking and daring to dream," McDonald said, "NASA's first and foremost mission is safety. Our slogan 'mission success starts with safety' is not a mantra," he said, "it is a call to action, a commitment, our number one priority." He spoke of the Shuttle as being "the workhorse of the national space program for at least the next 10 to 20 years" and emphasized "the vital importance of continuing to upgrade the vehicle." He spoke of the need "to incorporate a stream of innovative, cost-effective technologies that address every aspect of Shuttle design, processing and flight and ground operations." And he reiterated Ames' commitment as the agency Center of Excellence for Information Technology to do just that.

Finally, he spoke of the need to be inclusive – to embrace new ideas, new companies and emerging technologies. He addressed the critical importance of not

only bringing more private companies into the Shuttle fold, but also of having research

thusiastic.

On Saturday, co-hosts State Senator Liz Figueroa and State Assemblywoman Elaine White Alquist led a host of regional and local political dignitaries who paid homage to NASA's educational programs and spoke of the need to challenge our children and ourselves with a greater range of education-related activities. Astronauts Paul Lockhart and Andy Allen were on hand to sign posters commemorating the 30th anniversary of the first human to step on the moon. Visitors also had a chance to partake of the 50 or so exhibits and interactive displays that had been set up as part of the conference program.

While this was the first-ever Shuttle Development Conference, organizers were delighted at the response of the public and regional and national business leaders. Ames

team members expressed their thanks to the conference organizers, United Space Alliance, and their contract support companies, Extraordinary Events and DaVinci Fusion. Indeed, by all appearances, all parties were extremely happy with the outcome. This year's event provides a solid base and sets a high standard for subsequent Shuttle upgrade conferences to come.

BY DAVID MORSE



photo by Jason Miller

Left to right: Assemblyman (San Jose) Mike Honda and Mountain View Vice-Mayor Rosemary Stasek

and human space flight centers work together and understand one another's needs to ensure that the latest technologies are incorporated throughout the Shuttle program. McDonald closed with a short, video that represented Ames' tribute to the women and men who make the Shuttle a reality.

Tours of Ames facilities were provided to over 100 visitors during the conference, and Ames personnel led two key technical sessions – on Information Technology and Space Thermal Systems. Media coverage of the event was surprisingly strong and en-

Space Technology and Education Day

photo by Astrid Terlep



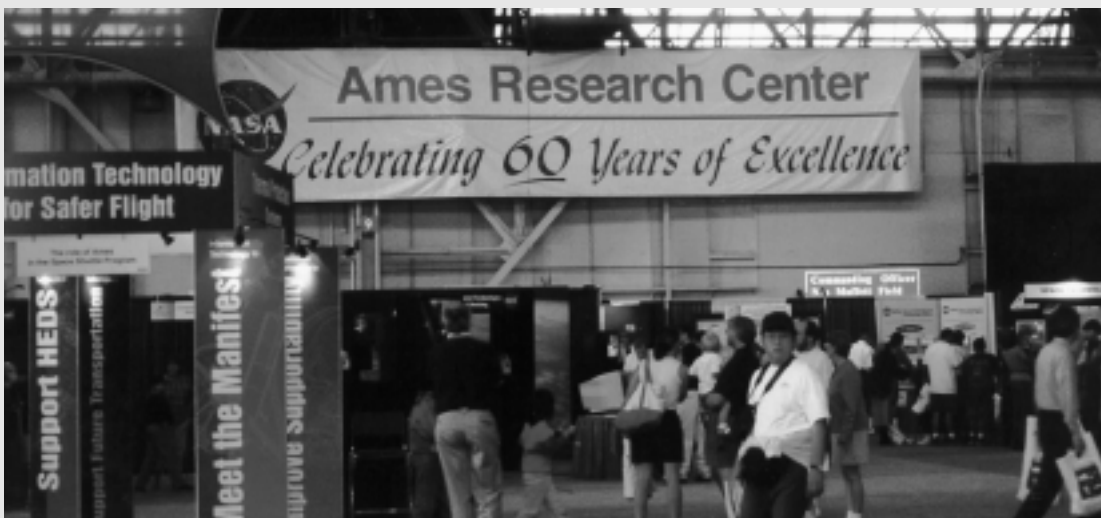
The USA theme booth welcomes visitors to Historic Hangar 1 and the extensive array of exhibits and displays.

Shuttle models and displays like this one offered by Lockheed Martin gave visitors all the information they could want about the Shuttle and NASA's upgrade program.



photo by Astrid Terlep

photo by Astrid Terlep



"Ames' city" with its 18 exhibits highlighting this Center's role as a technology provider to the Shuttle program was popular with conference attendees and public visitors alike.

Women's Equality Day celebration set for August 25

--Deputy District Attorney for Santa Clara County featured speaker at annual event

Rolanda Pierre-Dixon, Deputy District Attorney for Santa Clara County, will be the keynote speaker at the Center's "Women's Equality Day" celebration on August 25, from 11:30 a.m. to 1:00 p.m., in the Moffett Training and Conference Center Ballroom, Bldg. 3. This annual event is hosted by the Equal Opportunity Programs Office and the South Bay Federally Employed Women's (FEW) chapter.

Pierre-Dixon is currently a practicing Deputy District Attorney for Santa Clara County and is the county's expert on domestic violence. She started the county's domestic violence unit in 1991 and is still the team leader. Her commitment to domestic violence issues goes back over 16 years. She developed the first training outline for San Jose Police Department and the domestic violence unit. She helped staff the Santa Clara County Domestic Violence Council and has chaired numerous committees of the Council. She currently chairs the Death Review Committee.

She is a frequent lecturer for the California District Attorney's Association, the California Center on Judicial Education and Research, law enforcement, professional and

lay associations and educational institutions. She has lectured throughout California and in several other states, including Washington D.C. and Illinois.

She is the current Chair of the Santa Clara County Domestic Violence Death Review Team, Senior Fellow of the American Leadership Forum Silicon Valley, past Chair of the Women in the Law Committee of the California State Bar, past Chair of the Santa Clara County Women Lawyer's Committee, past Chair of The Santa Clara County Black Lawyer's Association, and past co-chair of Minority Access Committee of the Santa Clara County Bar Association.

She has received numerous awards and commendations including the instructor of the year award from the California District Attorney's Association (1998), Legal Services Award (Asian Law Alliance 1998), the California Clauer Award (Family Services Association 1997), Resolution of Commendation Santa Clara County Board of Supervisors (1997 and 1993), Community Service Award (University of Santa Clara 1993), Woman of Achievement Award (San Jose Mercury News and the Women's Fund, Fellow Western Society of Criminologists



Rolanda Pierre-Dixon

1993), Recognition Award San Jose Police Department Training (Domestic Violence 1993) and Black Law Students Association Alumni of the Year Award (1989).

Pierre-Dixon is a graduate of San Jose State University (BA Political Science) and the University of Santa Clara Law School (JD 1980).

BY ROSALIND EVE JONES

We are the champions!

The Ames Aeromen have just claimed the championship for Spring-league softball at the Twin Creeks sporting complex in the men's novice division. Led by Manager Dan Reda and Captain Stuart Rogers, the team was a longshot to win the championship by squeezing into the playoffs with a 5 and 5 won-loss record. They pulled together and knocked off Team Cobra, the first place team with a record of 9-1, in the first playoff game by a score of 12 to 6. The following week, in the championship game, they defeated AMAT Bats by a score of 6 to 3.

After 8 long years as a team, the championship win was long overdue and much celebrated! Team MVP Alan Wray pitched both playoff games without walking a single batter. The Aeromen are now savoring the sweet taste of victory while preparing for the summer league at Twin Creeks. The Ames Aeromen, comprised of staff from the AF, AI, and AS divisions, include: Jeff Brown, Mike Green, Steve Guarini, Matt Jardin, Dean Kontinos, Scott Lawrence, Mark Loomis, Rabi Mehta, Joe Olejniczak, Dave Olynick, Dan Reda, Stuart Rogers, Jason Williams, Alan Wray and Greg Zilliac.

R U Y2K OK?

Visit the Ames Y2K Website at <http://george.arc.nasa.gov/year2000/> to find out.

The Ames Y2K website has a variety of useful information to assist Ames employees to become Y2K ready. You can find information to help you prepare with:

- Desktop readiness
- Checking hardware and software compliance status through several government and industry databases.

- Y2K readiness (personal and at home) -- tips from FEMA, DoD, and other civilian organizations

If you have any questions, or need assistance with becoming Y2K prepared, contact the Y2K Project Office at ext. 4-6875.

In Memoriam

Richard Felix Claeys, 70 years old, of Orofino, Idaho, passed away June 11. A former Ames employee, he is survived by his son, Dr. Gregory R. Claeys of London, England, and three grandchildren, Anna, Christopher and Daniel of London. Also survived by his friend and companion, Gin Heberer.

Margaret E. Lundell, 83 years old, of Silverton, Oregon passed away June 25. She retired from the Ames Library Branch in 1979 after 21 years of service. She is survived by 2 daughters Judy Johnson and Gail Ringo, 5 grandchildren, 9 great-grandchildren and many friends.

Calendar

Ames Bowling League will be starting the 99/00 season at Palo Alto Bowl every Tuesday at 6pm on Sept. 7. The season is 33 weeks long and ends April 25 with a banquet the week after. The league is in need of bowlers to join teams, as well as substitutes. POC: Mina Cappuccio, mcappuccio@mail.arc.nasa.gov, at ext. 4-1313 or Mike Liu, mliu@mail.arc.nasa.gov, at ext. 4-4357.

Ames Ballroom Dance Club. Tuesdays: Salsa 7/27, 8/3, 8/10, Hustle 8/17, 8/24, 8/31. 3 levels of classes, from Beg. to Int., 5:15 - 6:45pm. Moffett Training and Conference Center, Bldg. 3/Showroom. Women dancers are especially encouraged to join. POC: Helen Hwang, hwang@dm1.arc.nasa.gov. ABDC Website: <http://abdc.arc.nasa.gov/>

Model HO/HOn3 Railroad Train Club at Moffett Field invites train buffs to visit and join the club in Bldg. 126, across from the south end of Hangar One. The club is in particular need of low voltage electricians and scenery builders and maintainers. Work nights are usually on Friday nights from 7:30 p.m. to 9:30 p.m. Play time is Sunday from 2 p.m. to 4 p.m. For more info, call John Donovan at (408) 735-4954 (work) or (408) 281-2899 (home).

Jetstream Toastmasters, Mondays, 12 noon to 1 p.m., N-269/Rm. 179. Guests welcome. POC: Jenny Kahn at ext. 4-6987 or Karen Matsuoka at ext. 4-6184.

Ames Child Care Center Board of Directors Meeting, Wednesdays, 12 noon to 1 p.m., N-213/Rm. 204, POC: Debbie Wood at ext. 4-0256.

NFFE Local 997 Union General Meeting, Aug 18, noon to 1 p.m., Bldg. 19/Rm. 2017. Guests welcome. POC: Marianne Mosher at ext. 4-4055.

Ames Asian American Pacific Islander Advisory Group Meeting, Aug 19, 11:30 a.m. to 1 p.m., N-241/Rm. B2. POC: Daryl Wong at ext. 4-6889 or Brett Vu at ext. 4-0911.

Ames Amateur Radio Club, Aug 19, 12 noon, N-260/Conf. Rm. POC: Mike Herrick, K6EAA at ext. 4-5477.

Native American Advisory Committee Mtg, Aug 24, 12 noon to 1 p.m., Ames Café. POC: Mike Liu at ext. 4-1132.

Ames Contractor Council Meeting, Sep 1, 11 a.m., N-200 Comm. Rm. POC: Jack Stanley at ext. 4-2345.

Environmental, Health and Safety Monthly Information Forum, Sept 2, 8:30 a.m. to 9:30 a.m., Bldg. 19/Rm 1078. POC: Linda Vrabel at ext. 4-0924.

Hispanic Advisory Committee for Employees, Sept 2, 11:45 a.m. to 12:30 p.m., N-241/Rm 237. POC: Mary R. Valdez, at ext. 4-5819.

Ames African American Advisory Group Meeting, Sept 2, 11:30 a.m. to 12:30 p.m. POC: Robert Finnie at ext. 4-5230. Contact Robert for meeting place.

Nat'l Association of Retired Federal Employees, San Jose Chapter #50, Meeting, Sept 3, at the Elk's Club, 44 W. Alma Avenue, San Jose. Social hour: 10:30 a.m. Prog. & bus. mtg. follow lunch at 11:30 a.m. POCs: Mr. Rod Peery, Pres., (650) 967-9418 or NARFE 1-800-627-3394.

Professional Administrative Council (PAC) Meeting, Sept 9, 10:30 a.m. to 11:30 a.m. Location TBD. POC: Janette Rocha, ext. 4-3371.

Ames Sailing Club Meeting, Sept 9, 11:30 a.m. to 1 p.m., N-262/Rm. 100. POC: Greg Sherwood, ext. 4-0429.

Safety and Quality Week, October 12-15. Kick-off with Dr. Harry McDonald, Quality Forum co-sponsored with American Society for Quality, Street Fair, Chili Cook-Off, Training and Apollo 13 Commander Jim Lovell. POC: Judi Martelli, ext. 4-2785 or Bob Navarro, ext. 4-5640.

Ames Classifieds

Ads for the next issue should be sent to astrogram@mail.arc.nasa.gov by the Monday following publication of the present issue and must be resubmitted for each issue. Ads must involve personal needs or items; (no commercial/third-party ads) and will run on space-available basis only. First-time ads are given priority. Ads must include home phone numbers; Ames extensions and email addresses will be accepted for carpool and lost and found ads only. Due to the volume of material received, we are unable to verify the accuracy of the statements made in the ads.

Housing

Furnished room. Share bath/kitchen/garden/laundry. Easy transport: bus/train + El Camino + H101/237/85 + Central Expressway. Rent: \$560/mo. Call (650) 969-3932 or email at: solemate@best.com

Available immediately for commuter and/or intern; a semi-private temporary space in the same location as above. Weekly \$100 (+one month). Call (650) 969-3932 or email at: solemate@best.com

Master bdrm available in Mt. View. Large apartment of professional lady; El Camino & Rengstorff. Gated bldg w/pool; convenient to bus 20 mins to downtown Palo Alto. Safe. \$750. Fontella (650) 962-8411.

English post-doc at Ames needs room to rent, must be near transportation. Dates needed: Sept 6 to Nov 23 (possibly longer). Email: oliver.de_peyer@virgin.net Fax: 01144 118 9316671.

New Ames postdoc arriving July 10, seeks "affordable" housing (rental/share) near Moffett. I'm clean, easy to live with. Reply to: scottm@darkwing.uoregon.edu or call (831) 338-1286.

Studios, 1-bedroom and 2-bedroom apartments located in Mountain View and Menlo Park. Sorry, N/P/S. Kim at Menlo Oaks Property Management at (650) 321-1366 and say that you read the ad in the Ames Astrogram.

2 rooms for rent in Campbell/Los Gatos corner of San Jose on or after Sept 1. Both rooms are furnished, share a bath and are convenient to public transportation, within 1/2 block. Considerate, professional, n/s, n/d environment. Deposits/lease required. Great location, ride share available. Call (408) 266-7272. Shorter term rental is possible.

Miscellaneous

Nice dogs free to good homes. Both are female, fixed, lovable, sweet, medium-large, outdoor mutts. Ages 4 and 9 yr. One malamute mix, one spaniel-lab-retriever mix. Take one or both. Owner will deliver to you. Call (707) 442-6238.

Puppy to good home. Mixed breed, female, spayed, short hair, 5 months old, 20 lbs growing to 60lbs. Friendly, sweet, loving dog. Wants a big family of people and/or other dogs. Call (650) 965-7439.

10" Craftsman radial Arm Saw \$100. 10" Rockwell table saw \$100. Call (408) 248-0686.

Pre Perego Roma stroller, blue, blue-green plaid \$90. Call (925) 484-1456 csrich@pacbell.net

US Robotics Sportster 56k faxmodem. Plug and play model 1787/PC. Never used. Original cost \$150. \$50 or B/O. Frank (408) 248-7164.

Dependable, mature, NASA Ames intern available for house/pet/plant sitting. Very flexible, price negotiable, references avail. Katie (408) 316-9765.

Windsurfing equipment: Custom epoxy board built by Hi-Tech Maui; 8'-8" , perfect condition, nearly new; \$600 obo. Custom fiberglass board (1990); 8'-6" excellent condition; \$125. Space Tech mast system, 2bot/1top (23&25 imcs; 440cm); excellent condition \$110. Mark (408) 749-9285.

Furniture moving sale, Richardson Bros dining room suite (9 pcs) \$3,000, Thomasville bedroom suite(6 pcs) \$2500, kitchen/game table and chairs \$400, dressers, couches, bookshelf, lamps, etc. Call (650) 964-8505.

Lighted hutch, matching table with one leaf and 4 chairs made from oak, also, included table pads, exc. cond. \$600 or B/O. Call (408) 255-8362.

Dependable, mature, NASA Ames intern available for house/pet/plant sitting. Very flexible, price negotiable, references avail. Katie (650) 868-6847.

Transportation

'72 Mercedes Benz 280 SE (4.5 L, gas engine), 180K mls. Silver and black classic, single owner for 27 years! Sunroof, power windows/doors, single engine. Perfect for the home classic car restorationist. \$5,000 or B/O. David (650) 851-9202.

'89 Ford Taurus LX, 4dr/sedan, 3.8V6, 107K mls, Loaded: A/C, pwr. steering, windows, seats, locks, premium sound system, leather seats, cruise control, and more. New automatic trans! Runs excellent. \$3450 or B/O (blue book ~\$4900). Magnus at email: pmnglob@yahoo.com or call (650) 857 9069.

'92 Mercury Sable Station Wagon, excellent condition, fully loaded, 69K mls, seats 8 and very well maintained. \$6,250. Harry Swenson (650) 368-8979.

'93 Toyota Corolla DX, 102K mls, exterior color - white; interior color - dark gray. Air conditioning, driver's air bag, cassette player, automatic transmission, new tires, in great condition. \$7,000 or B/O. Fiona (408) 245-5160

Vacation rental

Lake Tahoe-Squaw Valley Townhse, 3br-2ba, Balcony view, horseback riding, hiking, biking, golf, river rafting, tennis, ice skating, and more. Summer rates. Call (650) 968-4155 or email at: DBMcKellar@aol.com

San Juan, Puerto Rico, 3 bdrm ocean side apartment. School headmaster wishes to trade for a 3-4 bedroom home/apartment in the Menlo Park/Palo Alto area for Dec 21, 1999 - Jan 7, 2000 inclusive. Joe (650) 969-6119 or Russ (787) 726-5745 or email rbecher@caribe.net

Lost & Found

Moffett Field Lost and Found may be reached via ext. 4-5416 at any time. Residents and employees at Ames may also use Internet Browser at: <http://ccf.arc.nasa.gov/codejp/pages/lostFound.html> to view a list of found property and obtain specific instructions for reporting lost or found property and how to recover found property. Call Moffett Field Security Police Investigations Section at ext. 41359 or email at: mfine@mail.arc.nasa.gov.

Miscellaneous

Professional Admin Council (PAC) barbecue scheduled

All civil servant, contractor, secretary, administrative, clerical support and students are invited to attend the Professional Administrative Council (PAC) annual barbecue.

Come join your peers for hamburgers or veggie burgers, chips, salad, soda and cookies on September 9, 11:30 a.m. to 1:00 p.m. at Chase Park. Sign up no later than September 1 by contacting one of the PAC council members listed below. Please specify veggie burger or hamburger.

Nominations will be taken at the BBQ for next year's PAC representatives as co-chair, co-secretary/treasurer and co-editor.

There is no charge for this picnic.

PAC contact persons:

- Janette Rocha, ext. 4-3371
email: jrocha@mail.arc.nasa.gov
- Leslie Jacob, ext. 4-5059
email: ljacob@mail.arc.nasa.gov
- Rose VanZyvteld, ext. 4-1438
email: rvanzytveld@mail.arc.nasa.gov
- Sandra Owen, ext. 4-1281
email: sowen@mail.arc.nasa.gov
- Jean Nozaki, ext. 4-5354
email: knozaki@mail.arc.nasa.gov
- Jacqueline Nelson, ext. 4-5029
email: jnelson@mail.arc.nasa.gov

What Protective Services offers at Ames

Ames is a diverse and thriving research community with over 5,000 employees and resident agency personnel working here daily. Like any community, law enforcement is an essential part of that equation. At Ames, the law enforcement is handled by the security police officers and security officers assigned to the Protective Services Office (PSO).

Whether it is the security officer standing at a gate controlling access, or a security police officer working traffic enforcement in a marked patrol unit, they are the most visible part of our office, but they are not the only job the PSO is responsible for.

The Protective Services Office handles a wide array of other duties and responsibilities, including criminal investigations, lost and found property, physical and technical security, personnel security, which includes security clearances, visitor badging and employee badging. They also deal with export control, locksmithing and key control services.

The Protective Services Office provides all of these varied and important services for the safety and security of Ames employees and contractors, as well as the security of NASA property and information. In the coming weeks and months, this column will highlight different areas of the Protective Services Office that you may or may not be aware of. This is to better assist the community that we serve, the entire Ames community.

BY LT. MARK TARTE

Astrogram deadlines

All Ames employees are invited to submit articles relating to Ames projects and activities for publication in the *Astrogram*. When submitting stories or ads for publication, submit your material, along with any questions, in MS word by e-mail to astrogram@mail.arc.nasa.gov on or before the deadline.

DEADLINE	PUBLICATION
TUES, AUG 17	MON, AUG 30
TUES, AUG 31	MON, SEP 13
TUES, SEP 14	MON, SEP 27
TUES, SEP 28	MON, OCT 11
TUES, OCT 12	MON, OCT 25
TUES, OCT 26	MON, NOV 8
TUES, NOV 9	MON, NOV 22

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